WHAT IS CLAIMED IS:

1. A far field radio frequency identification (RFID) tag responsive to a plurality of continuous wave (CW), unmodulated signals selected from frequencies comprising a predetermined frequency band, the RFID tag including a power source supplying power to the RFID tag but not including a microprocessor.

2. The RFID tag as recited in claim 1, comprising:

an antenna generating received CW signals responsive to the CW unmodulated signals;

a filter bank generating noise-free CW signals responsive to the received CW signals;

a rectifier bank generating a binary word responsive to the noise-reduced CW signals;

a logic circuit generating a command signal when the received binary word corresponds to a tag identifier code programmed into the logic circuit; and

a state machine coupled to the antenna and responsive to the command signal generating information identifying the RFID tag for transmission via the antenna.

3. The RFID tag as recited in claim 2, further comprising a timer generating a clock signal applied to the state machine.

4. The RFID tag as recited in claim 2, further comprising a counter generating a count signal applied to the state machine in response to a supplied one of the CW unmodulated frequency signals.

5. The RFID tag as recited in claim 2, wherein the logic circuit comprises a field programmable gate array (FPGA).

6. The RFID tag as recited in claim 5, wherein the FPGA includes the state machine.

7. The RFID tag as recited in claim 2, further comprising a first switch electrically connected between the logic circuit and the state machine for selectively applying power to the state machine responsive to the command signal.

8. A method of operating a far field radio frequency identification (RFID) tag responsive to a plurality of continuous wave (CW), unmodulated signals selected from frequencies comprising a predetermined frequency band, wherein the RFID tag includes an antenna, a filter bank, a rectifier bank, a logic circuit, and a state machine, electrically coupled to one another in the recited order, the state machine being coupled to the antenna, and a power source supplying power to the RFID tag, but not including a microprocessor, comprising:

identifying a binary word included in the CW unmodulated signals;

comparing the binary word to a tag identifier for the RFID tag programmed into the logic circuit; and

when the binary word matches the tag identifier, controlling the state machine to output information distinguishing the RFID tag from similar RFID tags.

9. The method as recited in claim 8, wherein:

the binary word corresponds to M of N possible frequencies in the predetermined frequency band;

M and N are positive integers; and

N $\geq$M.

10. A far field radio frequency identification (RFID) tagging and tracking system employing a plurality of continuous wave (CW), unmodulated signals selected from frequencies comprising a predetermined frequency band, the system including a RFID interrogator generating a group of CW unmodulated signals corresponding to a RFID tag and receiving a tag identification (ID) signal sequence uniquely identifying the RFID tag,

and the RFID tag including a power source supplying power to the RFID tag but not including a microprocessor.

11. The RFID tagging and tracking system as recited in claim 10, wherein:

the RFID interrogator comprises:

first and second antennas;

a front end coupled to the first antenna that extracts the tag ID signal sequence from a received signal;

a controller receiving the tag ID signal sequence and generating control signals;

a multiple frequency generator generating a plurality of CW unmodulated frequency signals;

a switch array responsive to the control signals that route selected ones of the CW unmodulated frequency signals to a frequency summer; and

the frequency summer, which applies the selected ones of the CW unmodulated frequency signals to the second antenna; and

the RFID tag comprises:

a third antenna generating received CW signals responsive to the selected ones of the CW unmodulated frequency signals output by the second antenna;

a filter bank generating noise-free CW signals responsive to the received CW signals;

a rectifier bank generating a binary word responsive to the noise-reduced CW signals;

a logic circuit generating a command signal when the received binary word corresponds to a tag identifier code programmed into the logic circuit; and

a state machine coupled to the third antenna and responsive to the command signal generating the tag ID signal sequence for transmission via the third antenna to the RFID interrogator.

12. The RFID tagging and tracking system as recited in claim 11, further comprising a timer generating a clock signal applied to the state machine.

13. The RFID tagging and tracking system as recited in claim 11, further comprising a counter generating a count signal applied to the state machine in response to a supplied one of the CW unmodulated frequency signals.

14. The RFID tagging and tracking system as recited in claim 11, wherein the logic circuit comprises a field programmable gate array (FPGA).

15. The RFID tagging and tracking system as recited in claim 14, wherein the FPGA includes the state machine.

16. The RFID tagging and tracking system as recited in claim 11, further comprising a first switch electrically connected between the logic circuit and the state machine for selectively applying power to the state machine responsive to the command signal.

17. The RFID tagging and tracking system as recited in claim 11, wherein the CW unmodulated frequency signals and the tag ID signal sequence occupy first and second frequency bands.

18. The RFID tagging and tracking system as recited in claim 11, wherein:

the first antenna comprises a directional antenna; and

the controller determines a bearing line to the RFID tag.

19. The RFID tagging and tracking system as recited in claim 11, wherein the controller provides a data storage function and a display function.

20. A method for operating a far field radio frequency identification (RFID) tagging and tracking system responsive to a plurality of continuous wave (CW), unmodulated frequency signals selected from frequencies comprising a predetermined frequency band, wherein a RFID interrogator includes a multiple frequency generator producing the frequencies included in the predetermined frequency band, a controller, a switch array operated by the controller, and a frequency summer for combining the CW unmodulated frequency signals output by the switch array, while a RFID tag includes an antenna, a filter bank, a rectifier bank, a logic circuit, and a state machine, electrically coupled to one another in the recited order, the state machine being coupled to a RFID tag antenna, a power source supplying power to the RFID tag, but not including a microprocessor, comprising:

transmitting CW unmodulated frequency signals corresponding to a binary word;

extracting the binary word from the CW unmodulated frequency signals;

comparing the binary word to a tag identifier for the RFID tag programmed into the logic circuit; and

when the binary word matches the tag identifier, controlling the state machine to output a tag identification (ID) signal sequence distinguishing the RFID tag from similar RFID tags.

21. The method as recited in claim 20, wherein:

the binary word corresponds to M of N possible frequencies in the predetermined frequency band;

M and N are positive integers; and

$N \geq M$.